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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,380	01/22/2004	Gin-Der Wu	2019-0238P	3101
2292 7590 08/28/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER PAUL, DISLER	
			ART UNIT 2615	PAPER NUMBER
			NOTIFICATION DATE 08/28/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.		Applicant(s)	
	10/761,380		WU, GIN-DER	
	Examiner		Art Unit	
	Disler Paul		2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3-11 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 9, the applicant disclose of the returning to step as in claim 3 upon reaching the default value, However, the specification does not support such claim.

For prior art rejection, the examiner read claim 9 as: the method of downmix as in claim 8, wherein the in the estimating step, when the output gain reaches the default value, then it output such gain signal.

Claim Objections

2. Claim 9 is objected to because of the following informalities: The applicant is advised to correct the repetitive statement of by deleting: "*the output gain reaches the default value, then return to the processing step as in clam 3*". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kates (US 2004/01907734 A1).

Re claim 3, kates disclose of a method for audio downmix with dynamic-range control transforming, an audio input signal to an output signal (fig.1,3; col.1 par[0004] line 7-15; page 8[0060] line 14-20), comprising steps as follows: calculating power values of a plurality of audio surround channels and adjusting a gain of dynamic range control (page 5-6[0036-7], channel power determined for gain dynamic adjustment and see fig.1 (109,111)); processing a calculation of the gain and obtaining a gain which is a correct gain value {fig.1 (105, 107); (113,115)/ the calculation is process for outputting the correct gain value as seen in further in fig.2 or page 6[0039]}. While, Kates disclose of the above with the calculating of the multichannel power detecting as above, He fail to disclose of the inclusion of the calculating the power level of the central channel. But, official notice is taken, the limitation of calculating the power of central channel is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art to modify Kates by

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incorporating the further limitation of calculating the power of central channel for the purpose of obtaining optimum surround sound signals.

Re claim 4, the method for audio downmix with dynamic-range control as in claim 3, wherein the surround audio channels comprise a left surround audio channel and a right surround audio channel (fig.1,3-4 wt $(X_l(k), X_r(k))$).

4. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kates (US 2004/01907734 A1) and further in view of Millot et al. (US 2003/0002686 A1).

Re claim 5, the method for downmix as in claim 3, further comprising a step for estimating saturation state of the surround audio channel in the calculating step. But, Millott et al. disclose of a system wherein the further estimating the saturating state of surround channel in a calculation step (page 2[0012]/clip detector signal) for the purpose of preventing distortion from amplifier clipping with dynamic gain limiting. Thus, taking the combined teaching of Kate and Millot et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Kates and Millot et al. as a whole, by incorporating the estimating the saturating state of surround channel

in a calculation step for the purpose of preventing distortion from amplifier clipping with dynamic gain limiting.

Re claim 6, the method for downmix as in claim 5, wherein the step of processing a calculation of the gain is to estimate whether the left surround audio channel, the right surround audio channel and the central surround audio channel are saturated or not; when saturated, a saturation procedure is executed (Millot, page 4[0054]).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kates (US 2004/01907734 A1) and further in view of Ingalsbe et al. (US 6,556,661 B1).

Re claim 7, the method for downmix as in claim 3, However, Kates fail to disclose of the specific of having the adjusting step inverses a plurality of negative parts of the input signal and then produce an absolute value. However, Ingalsbe et al. disclose a system wherein similar concept of adjusting the inverse of a signal and then produce an absolute value (fig.3 wt (52,54); col.5 line 64-67) for the purpose of distributing switchable power to other part of circuits. Thus, taking the combined teaching of Kates and Ingalsbe et al. as a whole, it would have been obvious at the time of the convention to have incorporate the adjusting the inverse of a signal and then produce an

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absolute value for the purpose of distributing switchable power to other part of circuits.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kates (US 2004/01907734 A1) and further in view of Official Notice.

Re claim 8, the method for downmix as in claim 3, wherein the processing step further comprising: changing the gain in the processing step and outputting an output gain (fig.1 (109,105)); However, Kates fail to disclose of the further estimating whether the output gain in the changing step reaches a default value or not. However, official notice is taken the concept of estimating whether the output gain in the changing step reaches a default value or not is commonly known in the art, thus, it would have been obvious at the time of the invention to have incorporating the estimating whether the output gain in the changing step reaches a default value or not for the purpose of preventing causing hearing damage to the user's ear.

Re claim 9, the method for downmix as in claim 8, Kates would have further incorporate the limitation of wherein the in the estimating step, when the output gain reaches the default value, then

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it output such gain signal (fig.1-3 wt (YL(k); YR(K))/signals to be outputted).

Re claim 10 has been analyzed and rejected with respect to claim 8 above.

Re claim 11, the method for downmix as in claim 8, wherein the gain is changed in a fade-in in the changing step (fig.2/ the input/output gradual increase).

Allowable Subject Matter

7. Claims 1-2 are allowed.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP


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